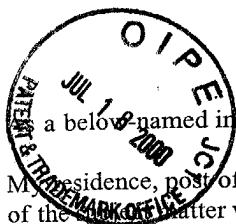


# DECLARATION FOR PATENT APPLICATION



a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name. I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled **Target-Dependent Reactions Using Structure-Bridging Oligonucleotides**, the specification of which was filed on 10/21/99 as Application Serial No. 09/402,618. I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

| <u>PCT/US98/03194</u><br><i>Number</i> | <u>PCT</u><br><i>Country</i> | <u>05/05/98</u><br><i>Day/Month/Year Filed</i> | <u>Yes</u><br><i>Priority Claimed</i> |
|--|------------------------------|--|---------------------------------------|
|--|------------------------------|--|---------------------------------------|

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

|  |                                       |   |
|--|---------------------------------------|---|
| <u>08/851,588</u><br><i>Application Serial No.</i> | <u>05/05/97</u><br><i>Filing Date</i> | <u>Pending</u><br><i>Patented, Pending or Abandoned</i> |
| <u>08/934,097</u><br><i>Application Serial No.</i> | <u>09/19/97</u><br><i>Filing Date</i> | <u>Pending</u><br><i>Patented, Pending or Abandoned</i> |
| <u>09/034,205</u><br><i>Application Serial No.</i> | <u>03/03/98</u><br><i>Filing Date</i> | <u>Pending</u><br><i>Patented, Pending or Abandoned</i> |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole or First Inventor: **Fang Dong**

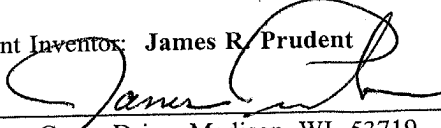
Inventor's Signature: \_\_\_\_\_  
Residence: 308 F Eagle Heights, Madison, WI 53705  
Post Office Address: 308 F Eagle Heights, Madison, WI 53705

Date: \_\_\_\_\_  
Citizenship: Peoples Republic of China

Full Name of Second Joint Inventor: **Victor I. Lyamichev**

Inventor's Signature: \_\_\_\_\_  
Residence: 2523 Carriedale Court, Madison, WI 53711  
Post Office Address: 2523 Carriedale Court, Madison, WI 53711

Date: \_\_\_\_\_  
Citizenship: Russia

Full Name of Third Joint Inventor: **James R. Prudent**Inventor's Signature:   
Residence: 3750 Country Grove Drive, Madison, WI 53719  
Post Office Address: 3750 Country Grove Drive, Madison, WI 53719Date: 7/3/00  
Citizenship: United States of AmericaFull Name of Fourth Inventor: **Lance Fors**Inventor's Signature: \_\_\_\_\_  
Residence: 12 Hidden Hollow Trace, Madison, WI 53717  
Post Office Address: 12 Hidden Hollow Trace, Madison, WI 53717Date: \_\_\_\_\_  
Citizenship: United States of AmericaFull Name of Fifth Joint Inventor: **Bruce P. Neri**Inventor's Signature: \_\_\_\_\_  
Residence: 5714 Kilkenny Place, Madison, WI 53711  
Post Office Address: 5714 Kilkenny Place, Madison, WI 53711Date: \_\_\_\_\_  
Citizenship: United States of AmericaFull Name of Sixth Joint Inventor: **Mary Ann D. Brow**Inventor's Signature: \_\_\_\_\_  
Residence: 5905 Hammersley Road, Madison, WI 53711  
Post Office Address: 5905 Hammersley Road, Madison, WI 53711Date: \_\_\_\_\_  
Citizenship: United States of AmericaFull Name of Seventh Joint Inventor: **Todd A. Anderson**Inventor's Signature: \_\_\_\_\_  
Residence: 1655 Capital Ave. #4, Madison, WI 53705  
Post Office Address: 1655 Capital Ave. #4, Madison, WI 53705Date: \_\_\_\_\_  
Citizenship: United States of AmericaFull Name of Eighth Joint Inventor: **James E. Dahlberg**Inventor's Signature: \_\_\_\_\_  
Residence: 1119 Merill Springs Road, Madison, WI 53705-1316  
Post Office Address: 1119 Merill Springs Road, Madison, WI 53705-1316Date: \_\_\_\_\_  
Citizenship: United States of America

## DECLARATION FOR PATENT APPLICATION

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|-----------------------|----------------|-----------------------------|-------------------------|
| <i>Number</i>         | <i>Country</i> | <i>Day/Month/Year Filed</i> | <i>Priority Claimed</i> |

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|                               |                    |                                       |
|-------------------------------|--------------------|---------------------------------------|
| <u>08/851,588</u>             | <u>05/05/97</u>    | <u>Pending</u>                        |
| <i>Application Serial No.</i> | <i>Filing Date</i> | <i>Patented, Pending or Abandoned</i> |
| <u>08/934,097</u>             | <u>09/19/97</u>    | <u>Pending</u>                        |
| <i>Application Serial No.</i> | <i>Filing Date</i> | <i>Patented, Pending or Abandoned</i> |
| <u>09/034,205</u>             | <u>03/03/98</u>    | <u>Pending</u>                        |
| <i>Application Serial No.</i> | <i>Filing Date</i> | <i>Patented, Pending or Abandoned</i> |

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Full Name of Sole or First Inventor: **Fang Dong**

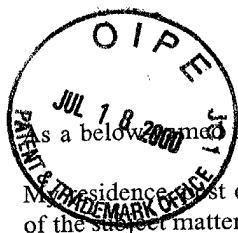
Inventor's Signature: \_\_\_\_\_  
Residence: 308 F Eagle Heights, Madison, WI 53705  
Post Office Address: 308 F Eagle Heights, Madison, WI 53705

Date: \_\_\_\_\_  
Citizenship: Peoples Republic of China

Full Name of Second Joint Inventor: **Victor I. Lyamichev**

Inventor's Signature: \_\_\_\_\_  
Residence: 2523 Carriedale Court, Madison, WI 53711  
Post Office Address: 2523 Carriedale Court, Madison, WI 53711

Date: \_\_\_\_\_  
Citizenship: Russia



## DECLARATION FOR PATENT APPLICATION

I, the undersigned inventor, I hereby declare that:

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| <u>08/851,588</u>             | <u>05/05/97</u>    | <u>Pending</u>                        |
| <i>Application Serial No.</i> | <i>Filing Date</i> | <i>Patented, Pending or Abandoned</i> |
| <u>08/934,097</u>             | <u>09/19/97</u>    | <u>Pending</u>                        |
| <i>Application Serial No.</i> | <i>Filing Date</i> | <i>Patented, Pending or Abandoned</i> |
| <u>09/034,205</u>             | <u>03/03/98</u>    | <u>Pending</u>                        |
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Full Name of Sole or First Inventor: Fang Dong

Inventor's Signature: Fang Dong

Residence: 308 F Eagle Heights, Madison, WI 53705

Post Office Address: 308 F Eagle Heights, Madison, WI 53705

Date: July 6, 2000

Citizenship: Peoples Republic of China

Full Name of Second Joint Inventor: Victor I. Lyamichev

Inventor's Signature: Victor I. Lyamichev

Residence: 2523 Carriedale Court, Madison, WI 53711

Post Office Address: 2523 Carriedale Court, Madison, WI 53711

Date: July 6, 2000

Citizenship: Russia

3-00  
Full Name of Third Joint Inventor: James R. Prudent

Inventor's Signature: \_\_\_\_\_  
Residence: 3750 Country Grove Drive, Madison, WI 53719 WI  
Post Office Address: 3750 Country Grove Drive, Madison, WI 53719

Date: \_\_\_\_\_  
Citizenship: United States of America

4-00  
Full Name of Fourth Inventor: Lance Fors

Inventor's Signature: Lance Fors  
Residence: 12 Hidden Hollow Trace, Madison, WI 53717 WI  
Post Office Address: 12 Hidden Hollow Trace, Madison, WI 53717

Date: 7/5/00  
Citizenship: United States of America

5-00  
Full Name of Fifth Joint Inventor: Bruce P. Neri

Inventor's Signature: Bruce P. Neri  
Residence: 5714 Kilkenny Place, Madison, WI 53711 WI  
Post Office Address: 5714 Kilkenny Place, Madison, WI 53711

Date: 7/5/00  
Citizenship: United States of America

6-00  
Full Name of Sixth Joint Inventor: Mary Ann D. Brow

Inventor's Signature: Mary Ann D. Brow  
Residence: 5905 Hammersley Road, Madison, WI 53711 WI  
Post Office Address: 5905 Hammersley Road, Madison, WI 53711

Date: 7/6/00  
Citizenship: United States of America

7-00  
Full Name of Seventh Joint Inventor: Todd A. Anderson

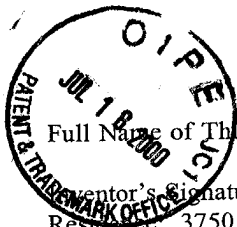
Inventor's Signature: Todd Anderson  
Residence: 1655 Capital Ave. #4, Madison, WI 53705 WI  
Post Office Address: 1655 Capital Ave. #4, Madison, WI 53705

Date: July 5, 2000  
Citizenship: United States of America

8-00  
Full Name of Eighth Joint Inventor: James E. Dahlberg

Inventor's Signature: \_\_\_\_\_  
Residence: 1119 Merrill Springs Road, Madison, WI 53705-1316 WI  
Post Office Address: 1119 Merrill Springs Road, Madison, WI 53705-1316

Date: \_\_\_\_\_  
Citizenship: United States of America



PATENT

Attorney Docket No.: FORS-04012

Full Name of Third Joint Inventor: **James R. Prudent**

Inventor's Signature: \_\_\_\_\_  
Residence: 3750 Country Grove Drive, Madison, WI 53719  
Post Office Address: 3750 Country Grove Drive, Madison, WI 53719

Date: \_\_\_\_\_  
Citizenship: United States of America

Full Name of Fourth Inventor: **Lance Fors**

Inventor's Signature: \_\_\_\_\_  
Residence: 12 Hidden Hollow Trace, Madison, WI 53717  
Post Office Address: 12 Hidden Hollow Trace, Madison, WI 53717

Date: \_\_\_\_\_  
Citizenship: United States of America

Full Name of Fifth Joint Inventor: **Bruce P. Neri**

Inventor's Signature: \_\_\_\_\_  
Residence: 5714 Kilkenny Place, Madison, WI 53711  
Post Office Address: 5714 Kilkenny Place, Madison, WI 53711

Date: \_\_\_\_\_  
Citizenship: United States of America

Full Name of Sixth Joint Inventor: **Mary Ann D. Brow**

Inventor's Signature: \_\_\_\_\_  
Residence: 5905 Hammersley Road, Madison, WI 53711  
Post Office Address: 5905 Hammersley Road, Madison, WI 53711

Date: \_\_\_\_\_  
Citizenship: United States of America

Full Name of Seventh Joint Inventor: **Todd A. Anderson**

Inventor's Signature: \_\_\_\_\_  
Residence: 1655 Capital Ave. #4, Madison, WI 53705  
Post Office Address: 1655 Capital Ave. #4, Madison, WI 53705

Date: \_\_\_\_\_  
Citizenship: United States of America

Full Name of Eighth Joint Inventor: **James E. Dahlberg**

Inventor's Signature: James E. Dahlberg  
Residence: 1119 Merill Springs Road, Madison, WI 53705-1316  
Post Office Address: 1119 Merill Springs Road, Madison, WI 53705-1316

Date: June 20, 2000  
Citizenship: United States of America

17. Certain Requirements under 35 U.S.C. 371 were previously submitted by the applicant  
on \_\_\_\_\_, namely:

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18. **Authorization To Charge Additional Fees and Credit Overpayment**  
X The Commissioner is hereby authorized to charge payment of any additional fees that may be  
required by this paper including, without limitation, filing fees, fees for presentation of extra  
claims, and surcharge for filing late declarations to Deposit Account No.: 08-1290.  
An originally executed duplicate of this transmittal is enclosed for this purpose.

19. **Return Receipt Postcard**  
X Enclosed.

Dated: October 21, 1999

  
Kamrin T. Macknight  
Registration No.: 38,230

MEDLEN & CARROLL, LLP  
220 Montgomery Street, Suite 2200  
San Francisco, California 94104  
(415) 705-8410

RECEIVED OCT 21 1999

PTO/PCT Rec'd 18 JUL 2000

PATENT

Attorney Docket No.: FORS-04012



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Fang Dong *et al.* Group No.:  
Serial No.: 09/402,618 Examiner:  
Filed: 10/21/99  
Entitled: Target-Dependent Reactions Using Structure-Bridging Oligonucleotides

POWER OF ATTORNEY BY ASSIGNEE

Assistant Commissioner for Patents  
Washington, D.C. 20231

Third Wave Technologies, Inc., as Assignee of record of the entire interest of the above-identified patent application, hereby appoints the members of the firm of MEDLEN & CARROLL, LLP, a firm composed of:

|                     |                   |                   |                     |
|---------------------|-------------------|-------------------|---------------------|
| Virginia S. Medlen  | (Reg. No. 32,050) | Maha A. Hamdan    | (Reg. No. 43,655)   |
| Peter G. Carroll    | (Reg. No. 32,837) | J. Mitchell Jones | (Reg. No. 44,174)   |
| Kamrin T. MacKnight | (Reg. No. 38,230) | David J. Wilson   | (Reg. No. 45,225)   |
| David A. Casimir    | (Reg. No. 42,395) | Jason R. Bond     | (Reg. No. P-45,439) |

as its attorneys with full power of substitution to prosecute this application and transact all business in the Patent and Trademark Office in connection therewith.

Please direct all future correspondence and telephone calls regarding this application to:

David A. Casimir  
MEDLEN & CARROLL, LLP  
220 Montgomery Street, Suite 2200 Telephone: 415/705-8410  
San Francisco, California 94104 Facsimile: 415/397-8338

I hereby certify that the Assignment document filed with the application or filed subsequent to the filing date of the application, has been reviewed and I hereby certify that, to the best of my knowledge and belief, title is with Third Wave Technologies, Inc.

Dated: 7/7/00

By: Lance Fors

Name: Lance Fors

Title: President and CEO

Third Wave Technologies, Inc.  
502 South Rosa Road  
Madison, WI 53719



Applicant / Patentee: Fang Dong *et al.*

Serial No.: 09/402,618

Filed: 10/21/99

Target-Dependent Reactions Using Structure-Bridging Oligonucleotides



VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS  
(37 CFR § 1.9(c) - SMALL BUSINESS CONCERN)

I hereby declare that I am an official of the small business concern empowered to act on behalf of the concern identified below:

Third Wave Technologies, Inc.  
502 South Rosa Road, Madison, WI 53719

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR §§ 121.3-18, and reproduced in 37 CFR § 1.9(d), for purposes of paying reduced fees under §§ 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled **Target-Dependent Reactions Using Structure-Bridging Oligonucleotides** by inventors named **Fang Dong *et al.***, described in Application Serial No. 09/402,618, filed 10/21/99.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR § 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Date: 7/7/00

By: Lance Fors

Name: Lance Fors

Title: President and CEO